



**National
Transportation
Safety Board**

The NTSB and Impaired Driving: Actions Needed to Reach Zero

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Board Member

Mid-Atlantic DUI Conference
April 15, 2014

Federal Agencies: Transportation

NTSB

FMCSA

FRA

NHTSA

PHMSA

DOT

MARAD

FTA

FHWA

FAA



NTSB



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- 1) determining the probable cause of transportation accidents
- 2) making recommendations to prevent their recurrence



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All Modes



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Key On-scene Events



Organizational Meeting

- Designate parties and party coordinators
- Establish and organize groups

Progress Meetings

- Summarize findings
- Info for briefings

Family Briefings

Press Briefings



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Commercial Vehicle Collision with Passenger Vehicle and Motor Coach (Orland, CA; 4/10/14)



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Organizational
Meeting
Groups and
Parties
Progress meetings
Media Briefings
Press Releases

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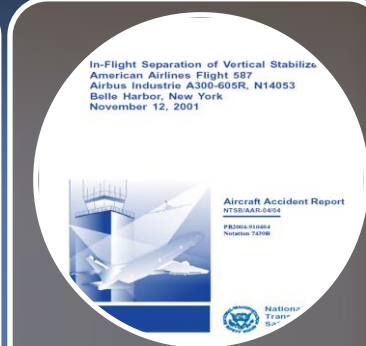
Factual information



- Fact finding
- Depositions
- Witnesses
- Docket



Docket
Findings
Conclusions
Probable Cause
Safety
Recommendations



Final Report



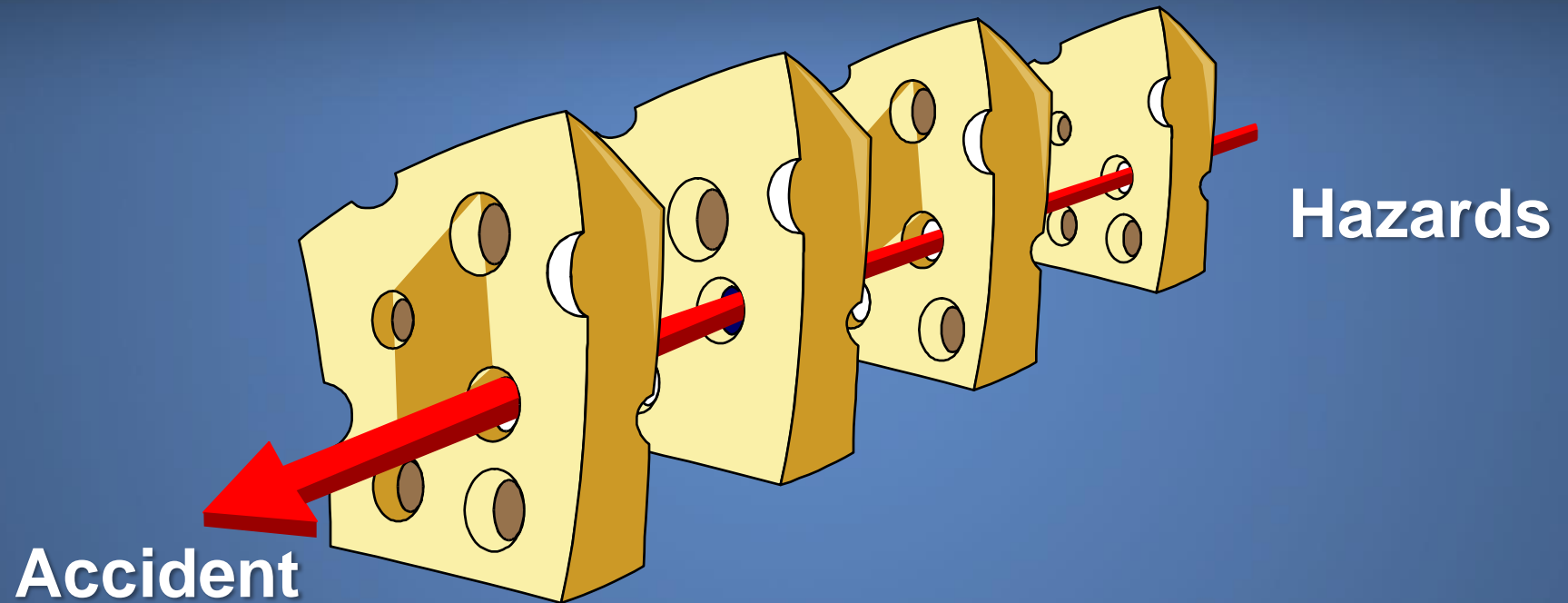
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Independent Federal Agency: Created in 1967

- ~ 132,000 accident investigations
- 13,500+ safety recommendations
- ~ 2,500 organizations/recipients
- 82% acceptance rate



“Swiss Cheese” Model (Reason)



Successive layers of defenses, barriers, and safeguards



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NTSB Characterized as:

‘moral compass and industry conscience’

NTSB Chairman Deborah A.P. Hersman



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Carrollton, KY (May 14, 1988)



67 passengers, 27 fatalities, 34 serious injuries; driver: .28 BAC



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Since 1988 . . .

- 300,000 lives lost
- Millions injured



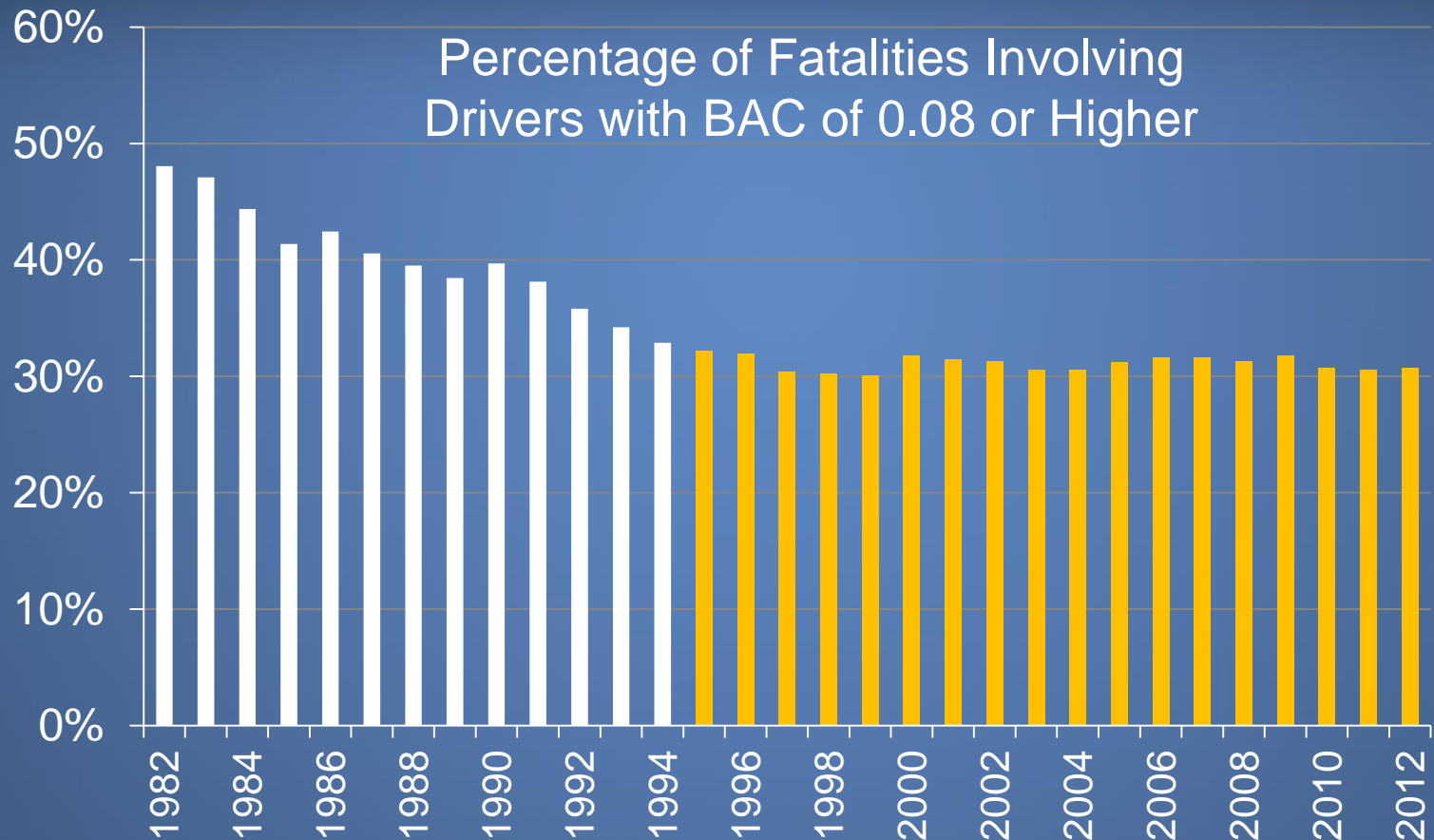
Since 1988 . . .

- 41% of fatalities to 31%
- 31% for over 15 years



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Alcohol-Impaired Driving



Since 1988 . . .

- 200 law enforcement lives lost



Every Year . . .

- ~ 10,000 lives lost



Every Year . . .

- 173,000 injuries
 - 27,000 are life-altering



Every Hour . . .

- 1 life lost
- 20 injuries



2011

FATALITIES

(the most recent government statistics available)

9,878 in *impaired driving* crashes

800 in marine accidents

759 in rail accidents

494 in aviation accidents



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NTSB Forum: May 15-16, 2012

REACHING ZERO

Actions to Eliminate Substance-Impaired Driving



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NTSB Forum: May 15-16, 2012

- 8 panels with 37 panelists
- Topics included:
 - the substance
 - current interventions
 - consequences
 - international view
 - the problem
 - enforcement
 - prevention
 - next steps



November 14, 2012

MOST WANTED LIST

The Most Wanted List represents the NTSB's advocacy priorities. It is designed to increase awareness of, and support for, the most critical changes needed to reduce transportation accidents and save lives.

ELIMINATE SUBSTANCE-IMPAIRED DRIVING



A generation ago, the NTSB investigated the nation's deadliest impaired driving crash, which killed 27 and injured dozens. Since then, more than 300,000 people have perished at the hands of impaired drivers. Much more must be done to address the senseless deaths of more than 10,000 people every year.

AIRPORT SURFACE OPERATION

BUS SAFETY

ELIMINATE DISTRACTION

FIRE SAFETY

GENERAL AVIATION SAFETY

INFRASTRUCTURE

PIPELINE SAFETY

POSITIVE TRAIN CONTROL

SUBSTANCE-IMPAIRED DRIVING

COLLISION AVOIDANCE



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November 23, 2012. . .

- NTSB issued 6 new safety recommendations
- Focus: better data



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Wrong-Way Driving



Special Investigation Report

NTSB/SIR-12/01
PB2012-917003



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December 11, 2012. . .

- Wrong-way driver report
 - > 60% involve alcohol-impaired drivers
- NTSB issues 3 new safety recommendations
- Technology focus:
 - all offender ignition interlock
 - in-vehicle passive monitoring (DADSS)



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Reaching Zero: Actions to Eliminate Alcohol-Impaired Driving



Safety Report

NTSB/SR-13/01
PB2013-106566



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May 14, 2013. . .

- Safety Study
 - Reaching Zero: Actions to Eliminate Alcohol-Impaired Driving
- NTSB issues 10 new safety recommendations



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10 New Safety Recommendations

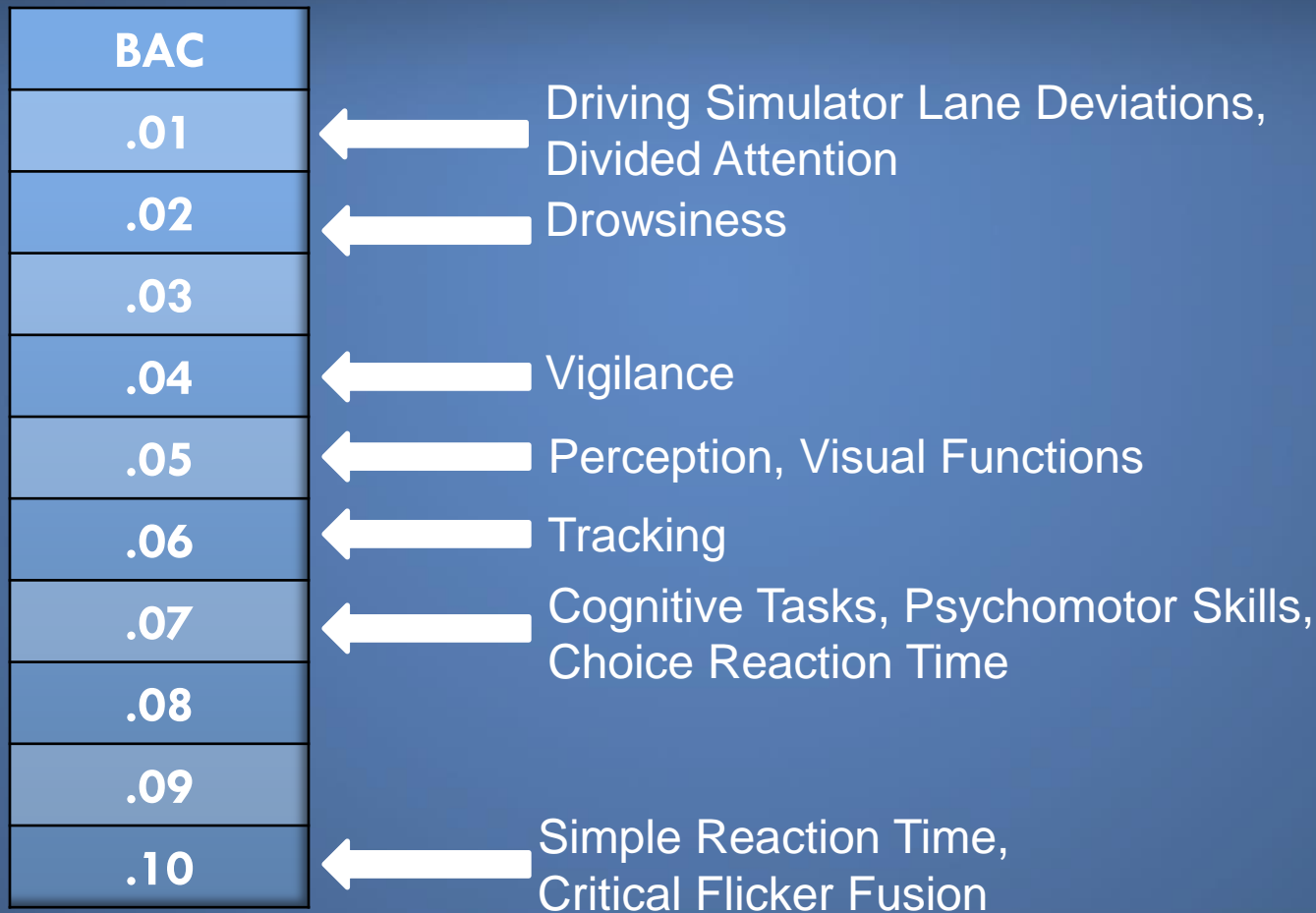
- Laws: reducing per se BAC limit; expand ALS/ALR
- HVE incorporating PAS technology
- Expand use of in-vehicle devices (ignition interlocks)
- Repeat offenders: use DWI courts/other programs
- Establishing measurable goals/tracking progress (states)



Alcohol Impairment and Per Se Laws



Driving-Related Performance

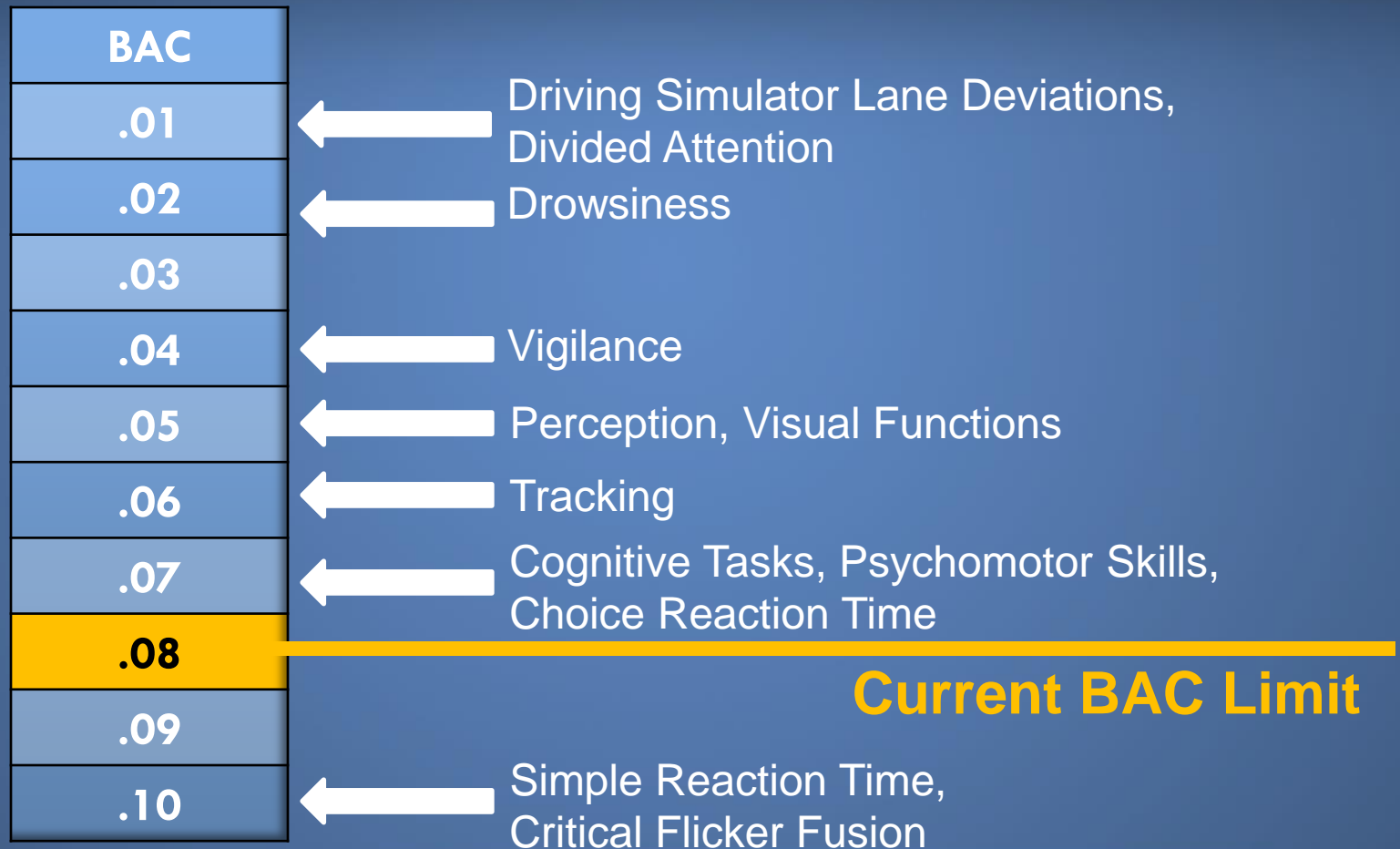


(Moskowitz and Fiorentino, 2000)



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Driving-Related Performance

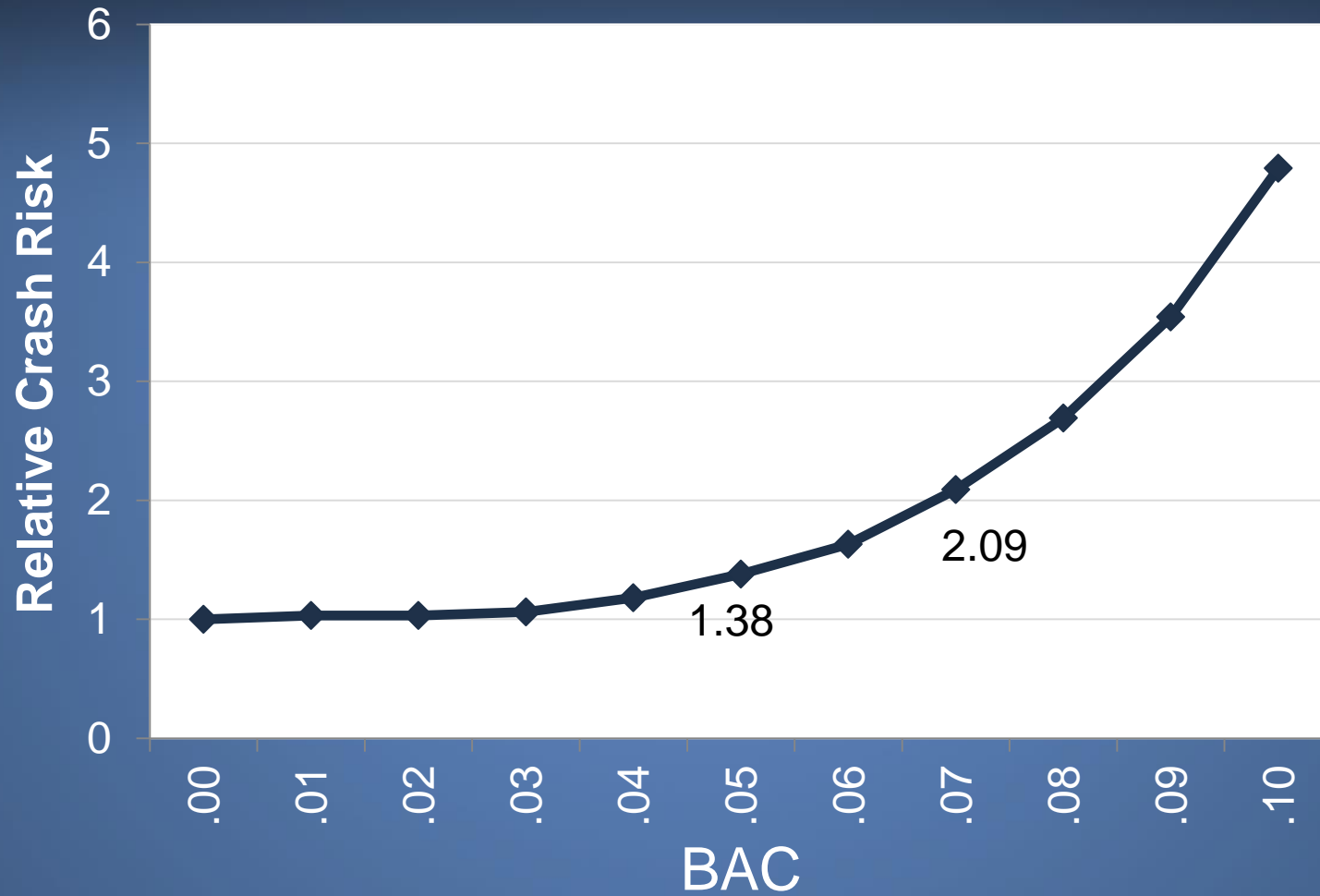


(Moskowitz and Fiorentino, 2000)

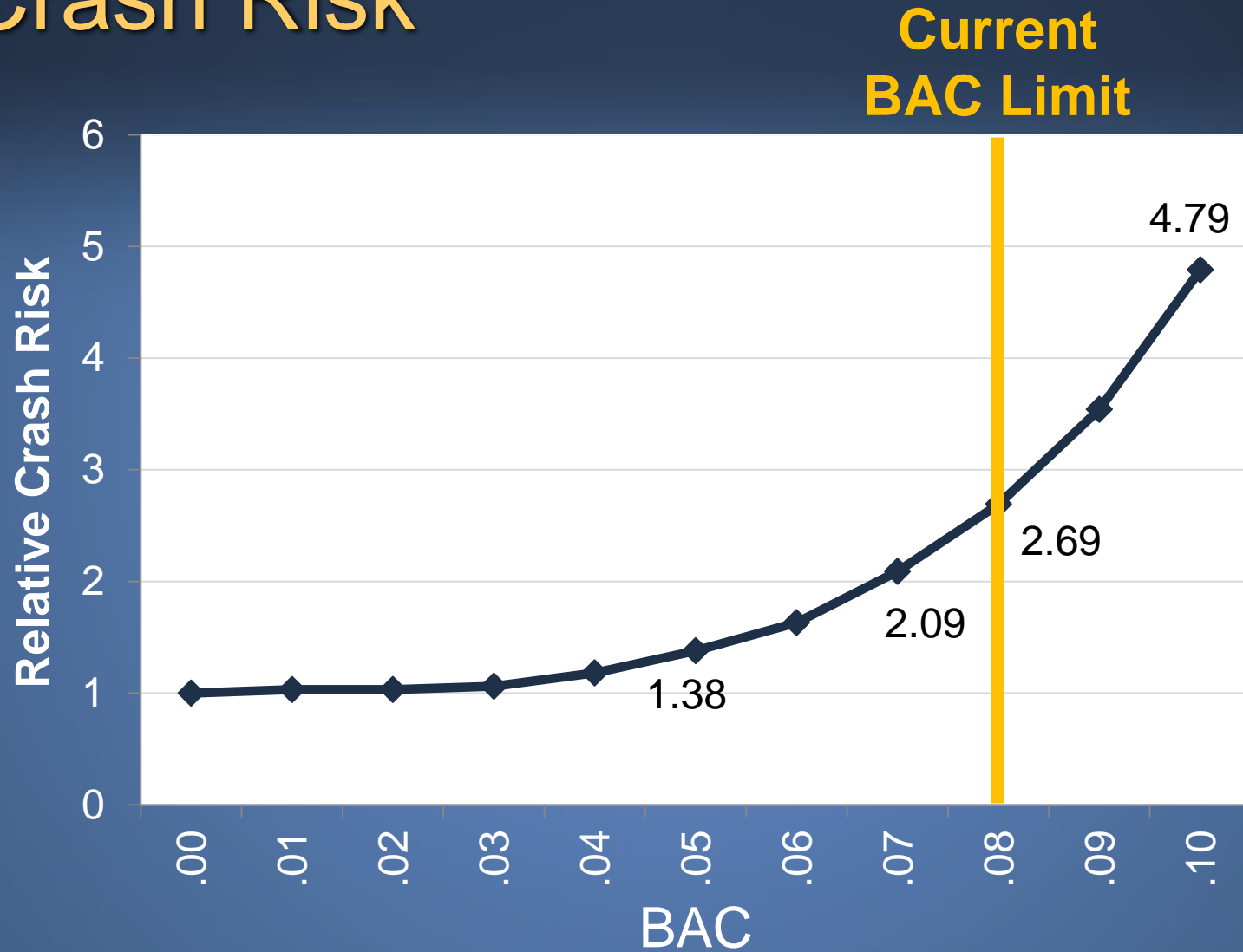


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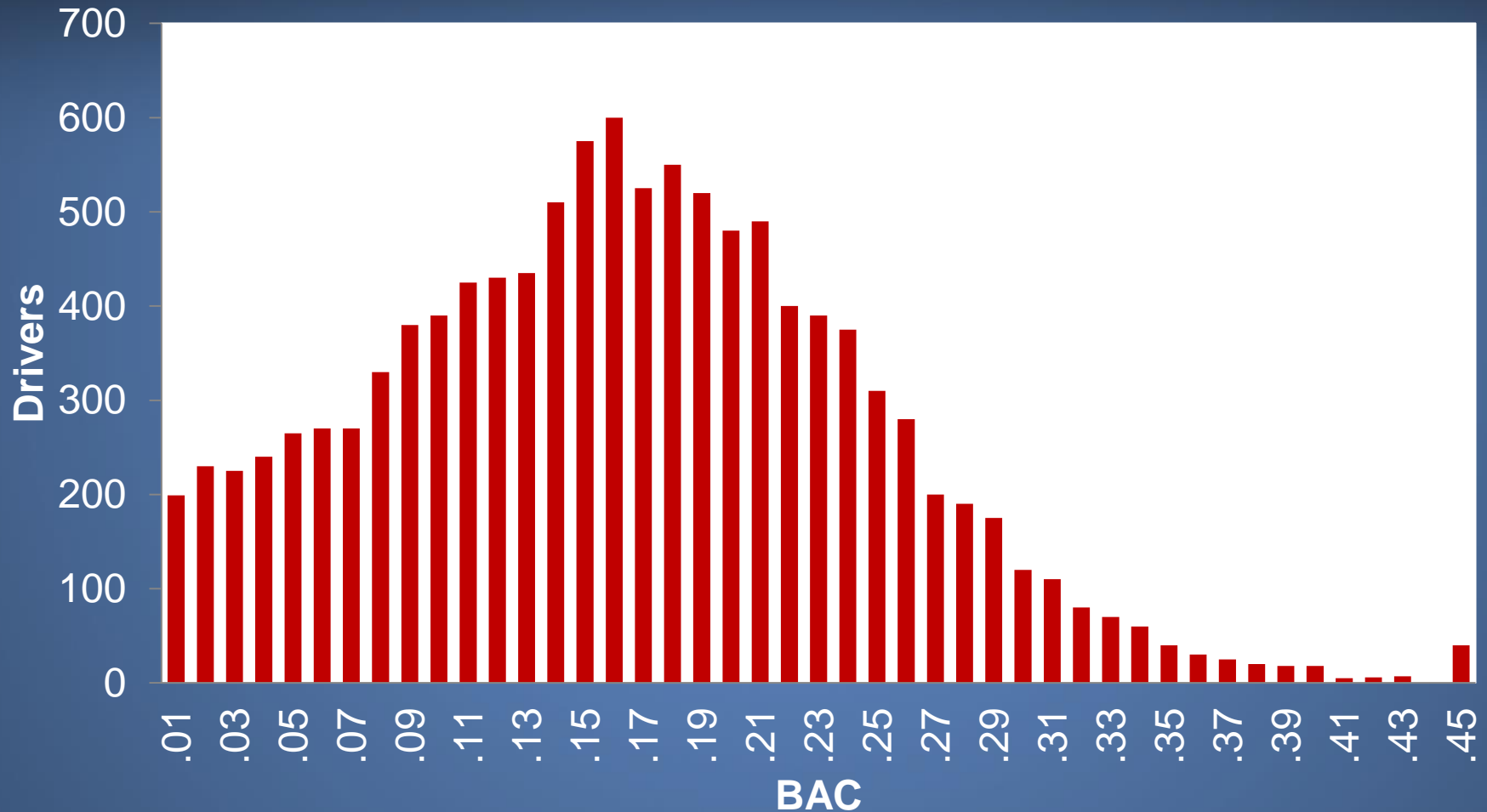
Crash Risk



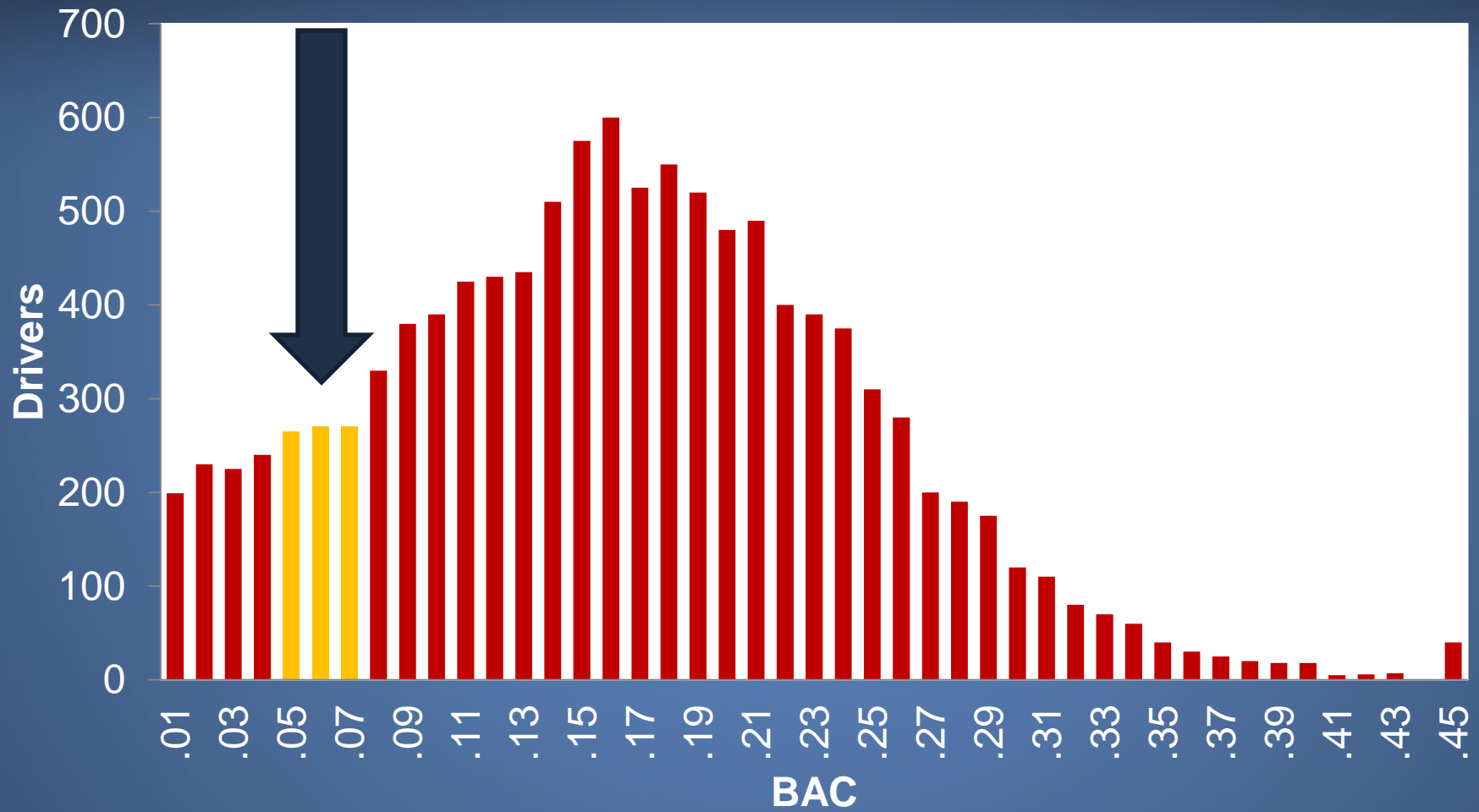
Crash Risk



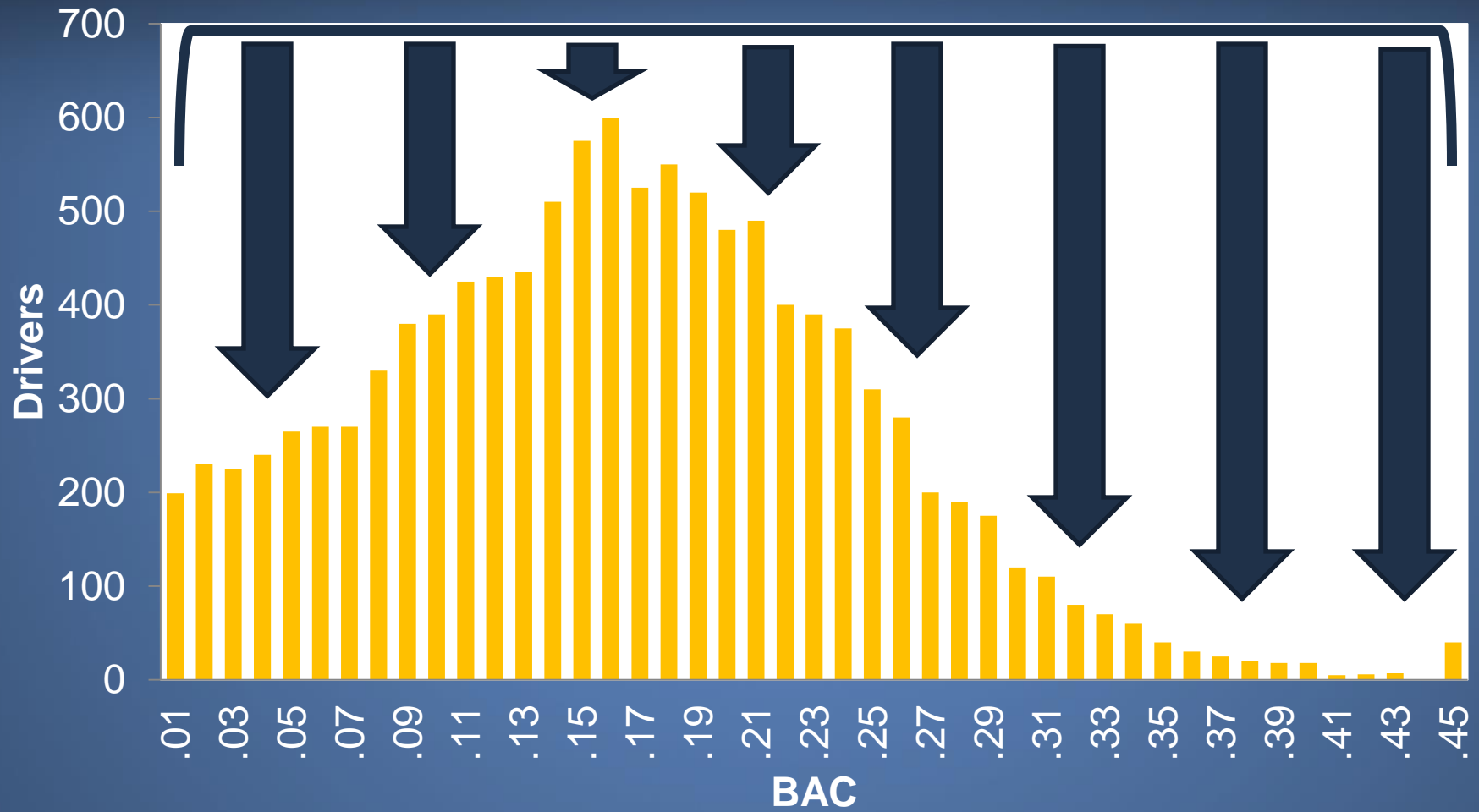
Fatal Crashes (2012): BAC $\geq .01$



Misconception: Changing BAC Affects Small Group



Reality: Changing BAC Affects Drivers at All Levels



Reducing Per Se BAC Limits

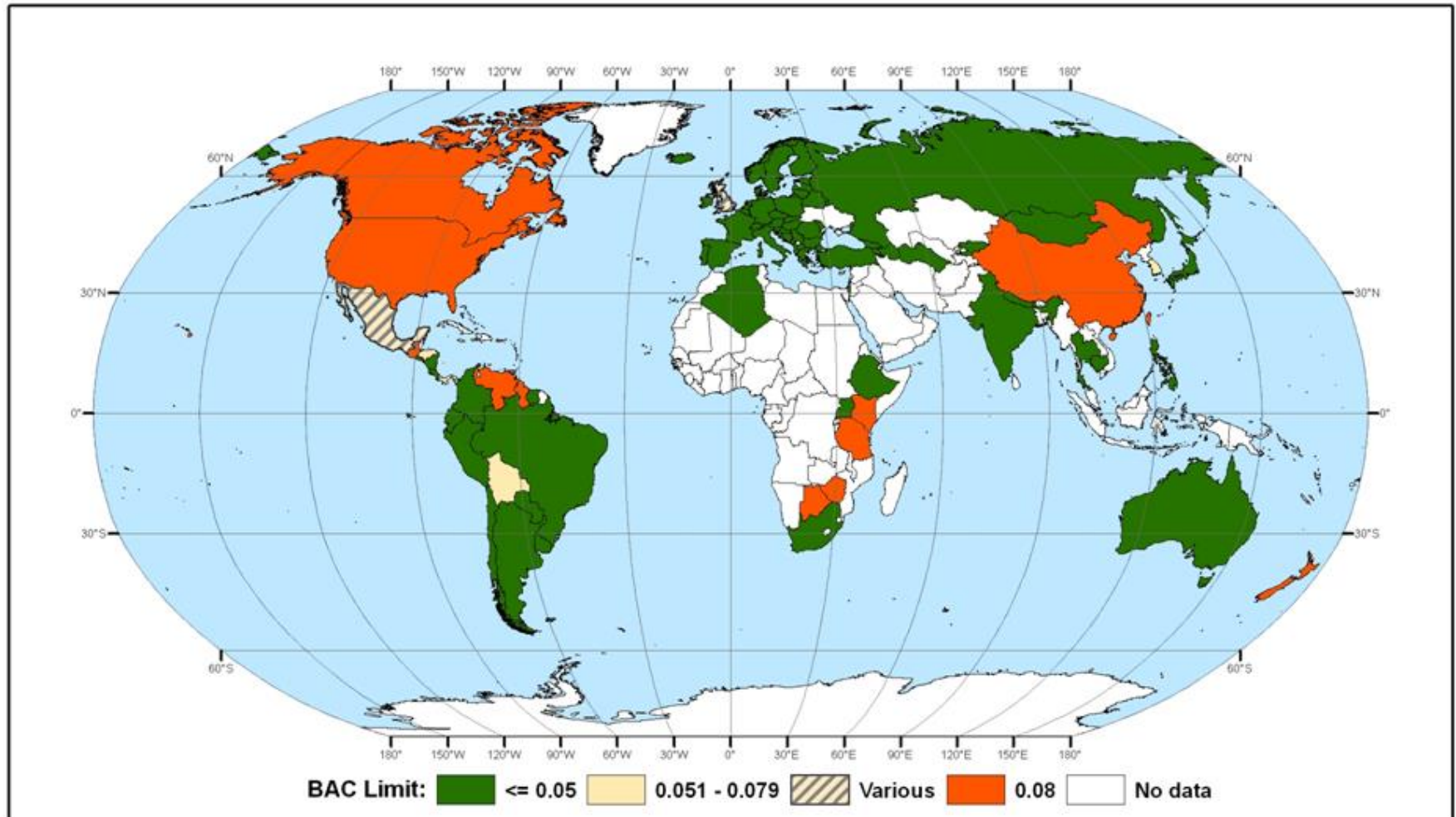
- Reduces crashes and fatalities across BAC levels
- Move from 0.10 to 0.08
 - 5-16% reduction in crashes, fatalities or injuries
- Estimated:
 - prevents 360 deaths/yr
 - 0.08 to 0.05 prevent additional 538 deaths/yr

Reducing Per Se BAC Limits

- Lowering BAC from 0.08 to ≤ 0.05
 - Europe: fatal crashes reduced among males and people aged 18-49
 - Australia: fatal crashes reduced 8% & 18% (could prevent ~1,000 – 2,000 deaths/yr)



BAC Per Se Limits World Wide



Traffic Safety and Public Health Support

- Association for the Advancement of Automotive Medicine
- American Medical Association
- World Health Organization
- World Medical Association



Separate



Drinking \longleftrightarrow **X** \longleftrightarrow Driving



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ROADMAP TO **REACHING ZERO**

- 
- Lower BAC limit
 - Increased use of high-visibility enforcement
 - Use of in-vehicle alcohol detection technology
- Ignition interlocks for all offenders
 - Enhanced use of Administrative License Actions
- Target repeat offenders
 - Use of DWI Courts

REACHING ZERO



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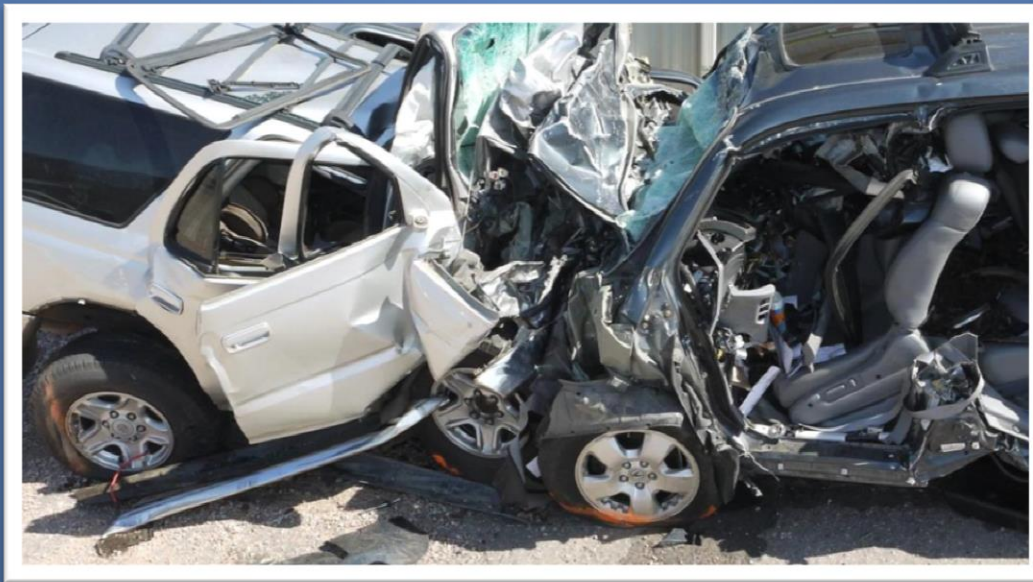
NTSB Roadmap

- Science-based/data-driven
- Diverse approaches
- Set of targeted interventions
- Near- and long-term strategies



Reaching Zero: NTSB Roadmap

- Stronger laws
 - Swifter enforcement
 - Expanded use of technology



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